

RHI-1P9K-HVES-5G

Solis High Voltage Energy Storage Inverters



Features:

- ▶ All-new intelligent hybrid PV inverter
- ▶ Dual MPPT - 9K
- ▶ Off-grid backup function
- ▶ Export control
- ▶ UPS function
- ▶ Intelligent EMS function
- ▶ Multiple protection functions
- ▶ CAN, RS485, Wi-Fi/cellular (optional)
- ▶ 10 years standard warranty with extension options



Model:
RHI-1P9K-HVES-5G

Datasheet

Model Name	RHI-1P9K-HVES-5G
DC Values (PV side)	
Max. DC input power (watts)	12600
Max. voltage (volts)	500
Rated voltage (volts)	330
Startup voltage (volts)	120
Operating MPPT voltage range (volts)	90-450
Max. usable input current per MPPT (amps)	22*2
Max. short circuit input current (amps)	34.3*2
Number of MPPTs/inputs per MPPT	2/2
Battery	
Battery type	Li-ion
Operating voltage range (volts)	120-500
Max charge/discharge current (amps)	20
Continuous power (watts)	6000
Peak power (watts)	7000
2-pole disconnection	Yes
DC fuses on plus and minus (amps)	30 (field replaceable)
AC Values (back-up)	
Nominal output power (watts)	6000
Transient max. apparent output power (watts)	7000
Back-up switch time	<10ms
AC output voltage range (volts)	211-264 (L-L)
AC output voltage range (volts)	105-132 (L-N)
AC output frequency range (hertz)	55-65
Rated frequency (hertz)	60
Operating phase	Single Phase
Rated output current (amps)	25
Max. output current per phase (amps)	25
Overcurrent protection value (amps)	30
Grid current THD	<3%
AC Values (grid side)	
Nominal output power (watts)	9000
Nominal grid voltage (volts)	208/240
Nominal grid frequency (hertz)	60
Rating grid output current (amps)	43.3/37.5
Output power factor range	1 (default) and 0.8 leading ... 0.8 lagging adjustable
Grid current THD	<3%
Input AC (grid side)	
Input voltage range (volts)	183-228(for 208V rated)/211-264(for 240V rated)
Max. input current (amps)	48
Frequency range (hertz)	59.5-60.5
Efficiency	
Max efficiency of solar inverting	98%
CEC efficiency of solar inverting	97.5%
Protection	
Ground fault monitoring	Yes
Anti-islanding protection	Yes
Residual current monitoring unit	Yes
DC insulation monitoring	Yes
DC AFCI	Yes
DC reverse polarity protection	Yes
DC surge arrester	Yes
AC surge arrester	Yes
General data	
Dimensions (width*height*depth)	20.2*28.1*7.8in (514*717*250mm)
Weight	66.1lbs (30kgs)
Operating temperature range	-13°F to 140°F (-25°C to 60°C)
Storage environment	-13°C to 158°F (-25°C to 70°C)
Enclosure type	NEMA 4X
Inverter topology	Transformerless
Noise emission (typical)	<30dB(A)
Cooling concept	Natural convection
Max.operating altitude without derating	6, 560ft (2000m)
AC and DC connections	4 knockout for 1" conduit at bottom 2 knockout for 1" at side. 3 knockout for 1/2" at bottom
Display	7.0"LCD color screen display
Communication protocol	Modbus RTU (Sunspec compliant)
Warranty	10 Years standard (extendable to 20 years)
Features	
Grid connection standard	IEEE1547A, CA Rule 21 (UL 1741-SA), ISO-NE, Rule 21 Phase I, II compliant (Ready for Phase III), Rule 12
Safety/EMC standard	UL 1741, UL 1741SA, UL1998, UL1699B, CAN/CSA C22.2 107.1-1, FCC Part 15 Class B
Communication Interface	CAN, RS485*2 (provided) cellular or Wi-Fi
Revenue grade data ANSI C12.20	0.5 % RGM (optional)
Rapid shutdown 2017 NEC 690.12	Yes
RSD transmitter	Yes
Compatible batteries	BYD and LG Chem
Auto-Transformer	Optional